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CAMBRIDGE PRIMARY
Science

Activity Book

3

Completely **Cambridge**
Cambridge resources *for* Cambridge qualifications

Jon Board and Alan Cross

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UNIVERSITY PRESS

University Printing House, Cambridge CB2 8BS, United Kingdom

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It furthers the University's mission by disseminating knowledge in the pursuit of education, learning and research at the highest international levels of excellence.

Information on this title: education.cambridge.org

First published 2014
3rd printing 2015

Printed by Multivista Global Ltd, India

A catalogue record for this publication is available from the British Library

ISBN 978-1-107-61145-0 Paperback

Cover Artwork: Bill Bolton

The publisher is grateful to the experienced teachers Mansoora Shoaib Shah, Lahore Grammaer School, 55 Main, Gulberg, Lahore and Lynne Ransford for their careful reviewing of the content.

Introduction

The *Cambridge Primary Science* series has been developed to match the Cambridge International Examinations Primary Science curriculum framework. It is a fun, flexible and easy-to-use course that gives both learners and teachers the support they need. In keeping with the aims of the curriculum itself, it encourages learners to be actively engaged with the content, and to develop enquiry skills as well as subject knowledge..

This Activity Book for Stage 3 is designed to be used alongside the Learner's Book for the same stage, ISBN 978-1-107-61141-2.

In this book you will find a single-page exercise to accompany each topic presented in the Learner's Book, as well as a language review exercise at the end of each unit to practise the key vocabulary. The exercises are designed to be completed as pen-and-paper exercises, and learners can work on them individually or in pairs or small groups. You can set the exercises as in-class work or homework.

There are different styles of exercise throughout to maintain interest and to suit different purposes. The main aims of the exercises in this book are:

- to consolidate the subject knowledge presented in the Learner's Book
- to encourage learners to apply the knowledge in new situations, thus developing understanding
- to practise scientific language
- to develop scientific enquiry skills such as presenting and interpreting results from investigations.

The answers to the exercises in this Activity Book are available in the Teacher's Resource for Stage 3, ISBN 978-1-107-61150-4. This resource also contains extensive guidance on all the topics, ideas for classroom activities, and guidance notes on all the activities presented in Learner's Book. You will also find a large collection of worksheets.

We hope you enjoy using this series.

With best wishes,
the Cambridge Primary Science team.

Contents

Useful words

bar chart	a chart that shows results using bars; the length of each bar shows the size of the result

Yusef drew a **bar chart** to show the amount of water absorbed by different paper towels.

conclusion	what you find out in an investigation

Kai's **conclusion** was 'From the objects I have tested, only the paper clip is magnetic. The others are non-magnetic.'

group	to put things with other things that are the same in some way

Anas put the animals with fur in one **group** and the animals without fur into another group.

investigate	to do a test or experiment to find something out

Nasrat was told to **investigate** which objects were magnetic.

match	to draw a line to make a link between things (or link or join)

Zain drew lines to **match** pictures of animals to pictures of their babies.

plan	to decide how to do an investigation
	Carmen wrote a **plan** to test different objects with a magnet.
predict	to think about what the result of an investigation might be
	Habib was asked to **predict** which objects would be magnetic.
record	to write or draw results to show what happened
	Zina wrote the results in a table to **record** what happened.
research	to look for information by investigation by using books or the internet
	Jamil used the internet to **research** friction.
results	the observations or measurements made in a test
	Bo's **results** showed that many objects were not magnetic.
sort	to put things into groups
	Amy was asked to **sort** the materials into those that were hard and those that were soft.
table	a way of writing numbers or words in rows and columns
	The **table** showed which objects were magnetic and which were non-magnetic.

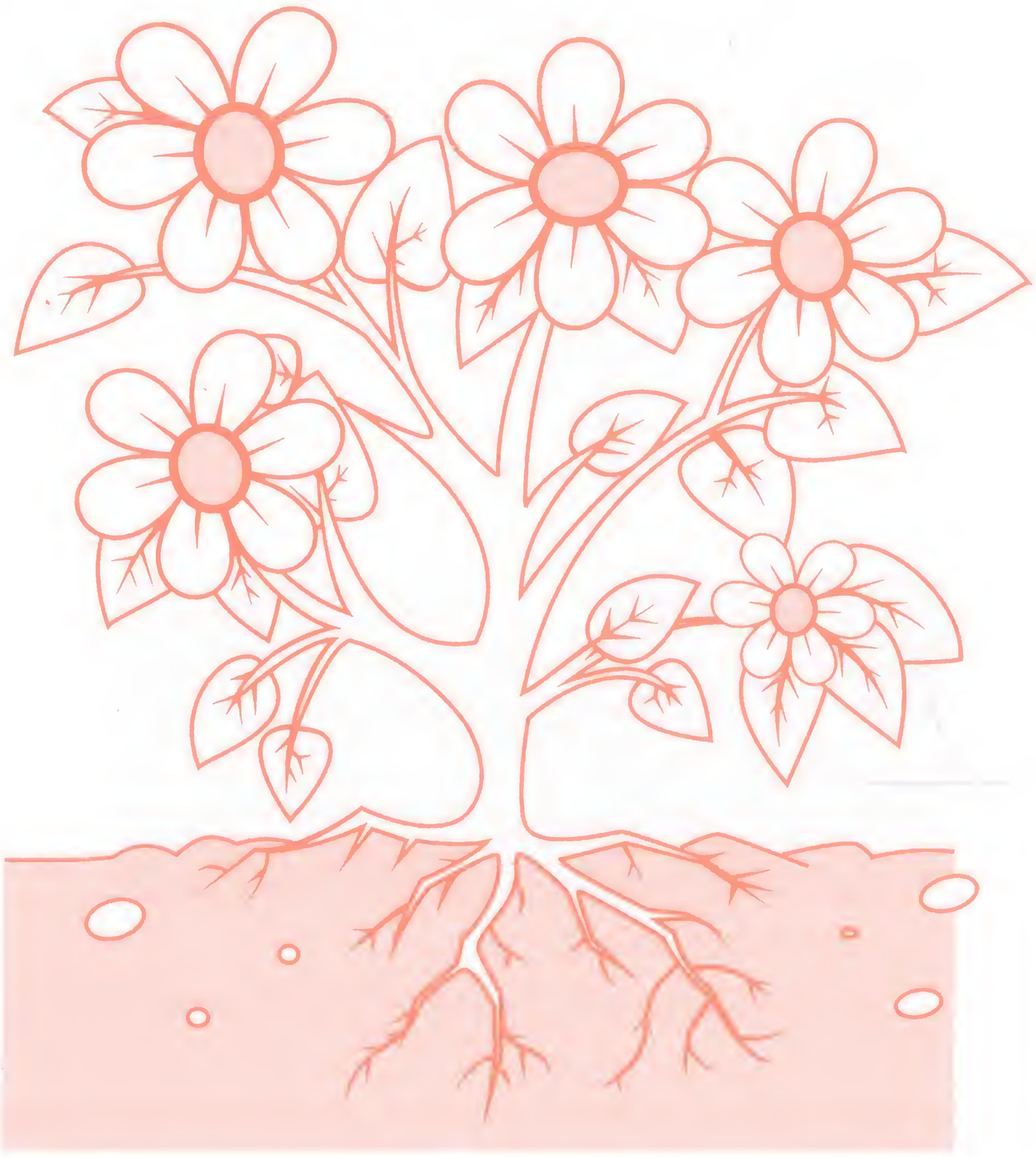
1 Looking after plants

Exercise 1.1 Plants and their parts

This exercise checks that you can name the parts of a plant.

Label this plant using these words.

roots stem leaves flowers



Exercise 1.2 Plants need water

In this exercise, you will practise drawing bar charts.

Subhan had two plants that were the same. He gave water to one plant. He did not give water to the other. He measured the height of the plants every day.

Here are the results on day 1 and day 10. Draw the bar charts for each day.

	With water in cm	No water in cm
Day 1	4	4

	With water in cm	No water in cm
Day 10	8	3

Day 1

Day 10

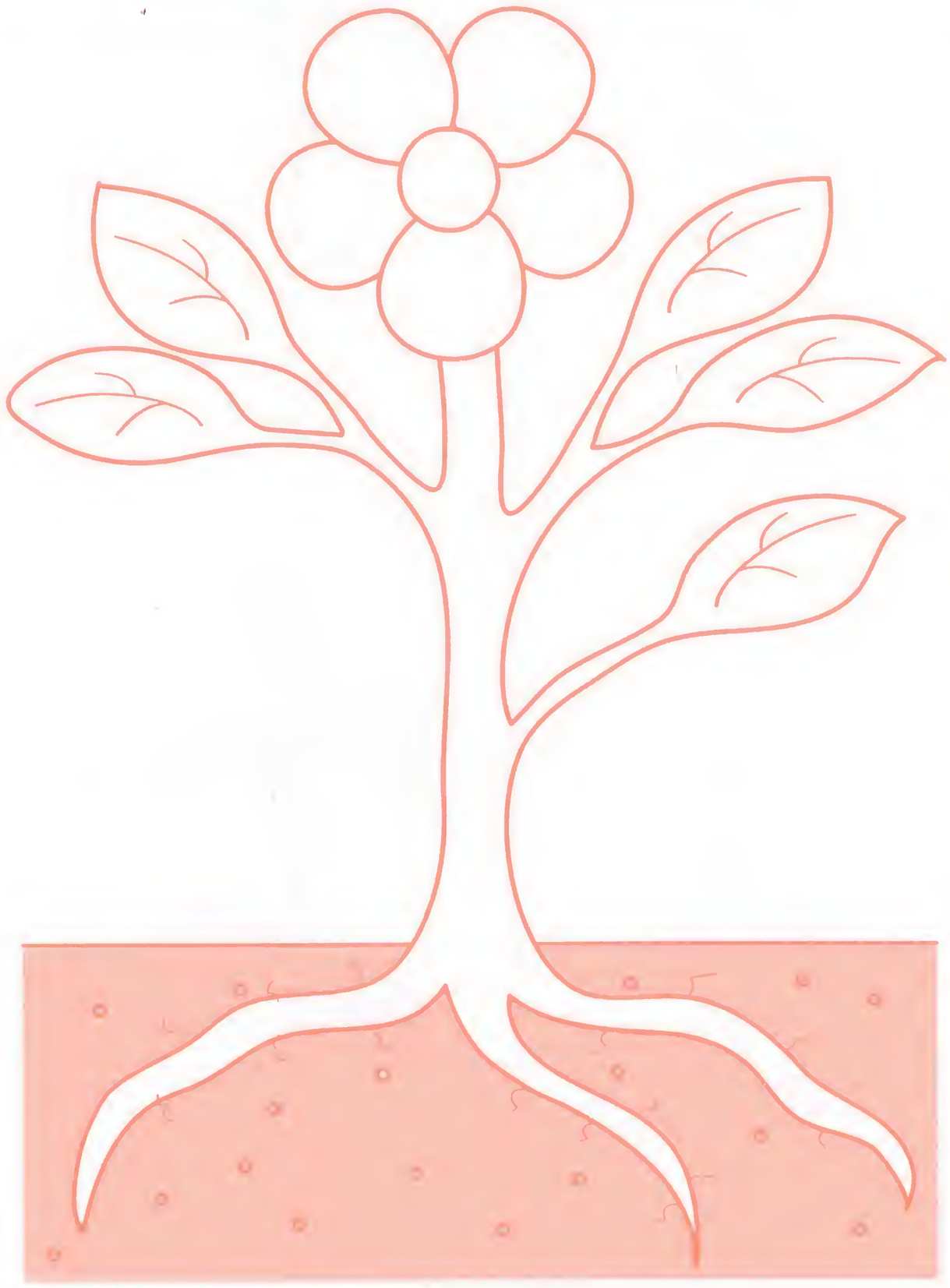
Which plant grew the best? Why?

Exercise 1.3 Transporting water

This exercise helps you to understand how water is transported inside a plant.

1 **Label this plant using these words.**

roots stem leaves



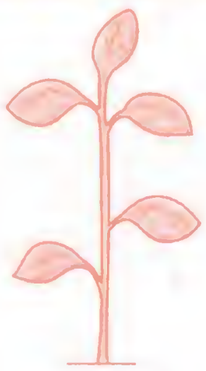
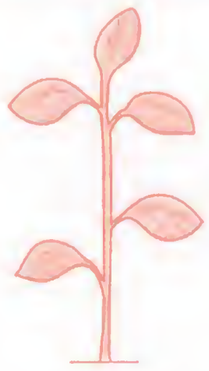
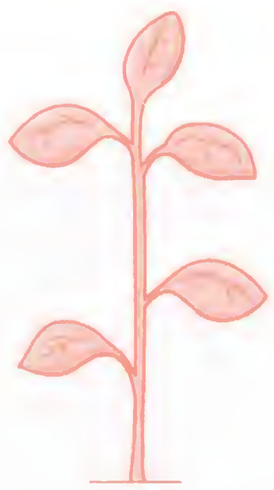
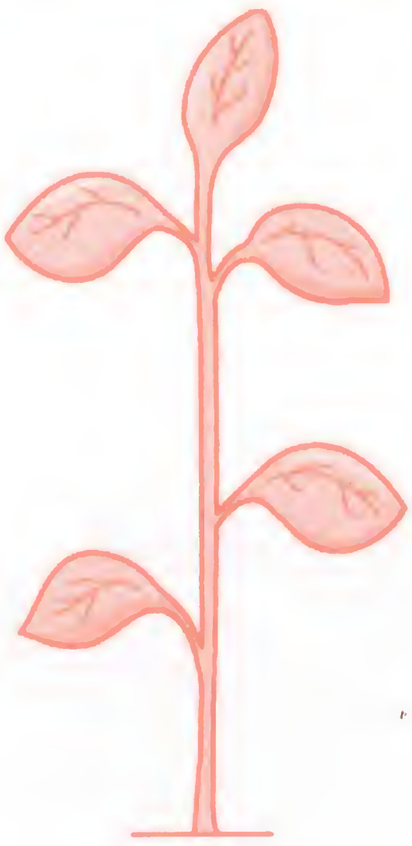
The plant absorbs water from the soil. It transports the water to the leaves.

2 **Draw arrows on the picture to show where the water goes.**

Exercise 1.4 Plant growth and temperature

In this exercise, you will practise measuring the height of plants and record the results in a table.

These young plants are growing. Measure the height of the plants using a ruler. Write your results in the table.

	Cold place	Warm place	Hot place
Day 1	 Height is _____	 Height is _____	 Height is _____
Day 14	 Height is _____	 Height is _____	 Height is _____

Explain the difference in height.

_____

Language review

This exercise checks that you understand the scientific words used in this unit.

1 **Use these words in sentences. The first one has been done for you.**

water: Plants need *water* to grow.

roots: _____

stem: _____

leaves: _____

flower: _____

2 **Put these words in the right place.**

transports	healthy	unhealthy

A _____ plant has enough water and light and is kept warm.

A plant with _____ roots, stem or leaves will not grow well.

The stem _____ water around the plant.

2 Looking after ourselves

Exercise 2.1 Food groups

This exercise checks that you understand food groups.

Draw and label these foods in the right food group below.

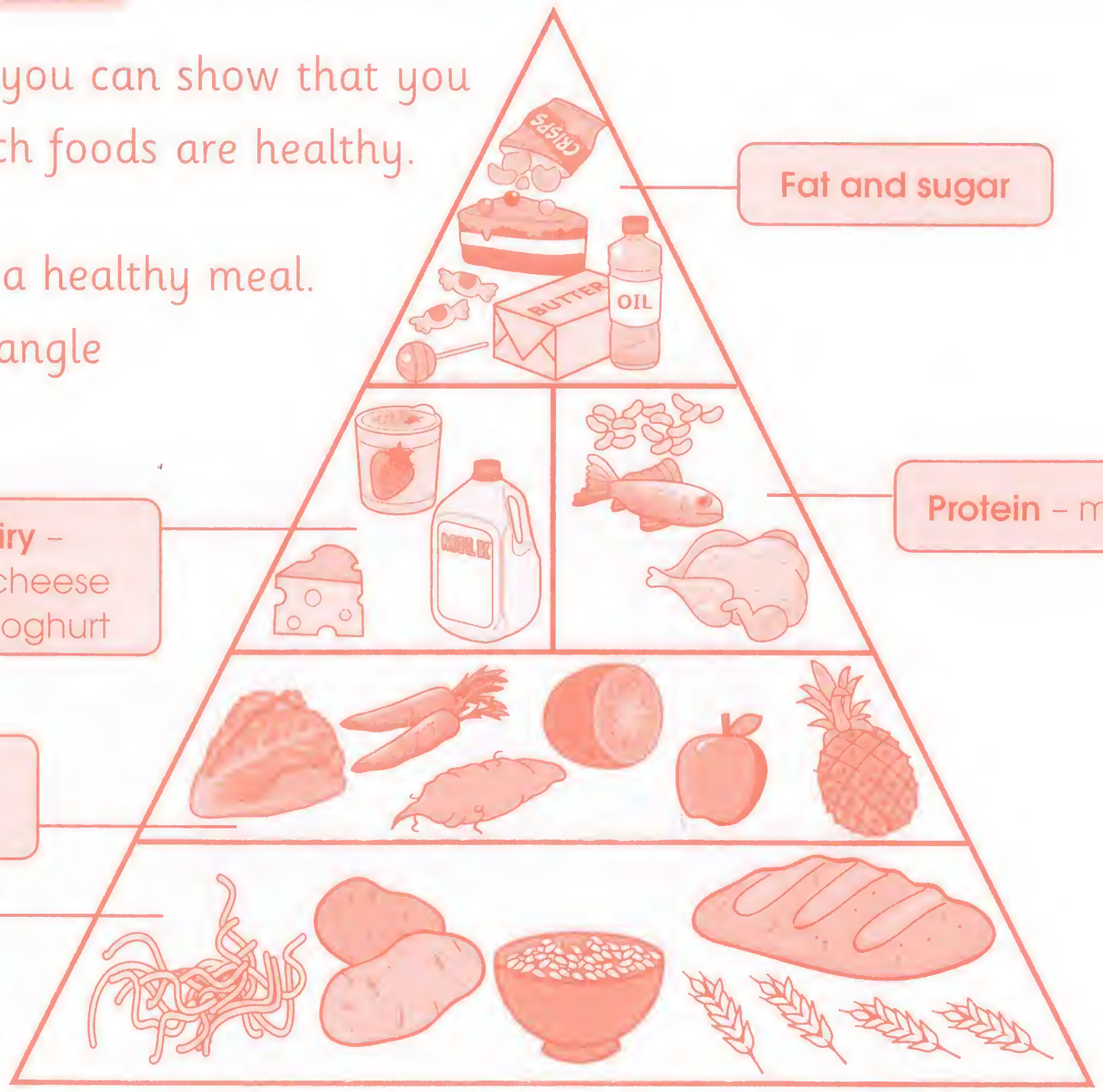
The first one has been done for you.

Carbohydrate	Fruit and vegetables	Protein	Dairy	Fat and sugar
			 cheese	

Exercise 2.2 A healthy meal

In this exercise, you can show that you understand which foods are healthy.

Draw and label a healthy meal.
Use the food triangle
to help you.



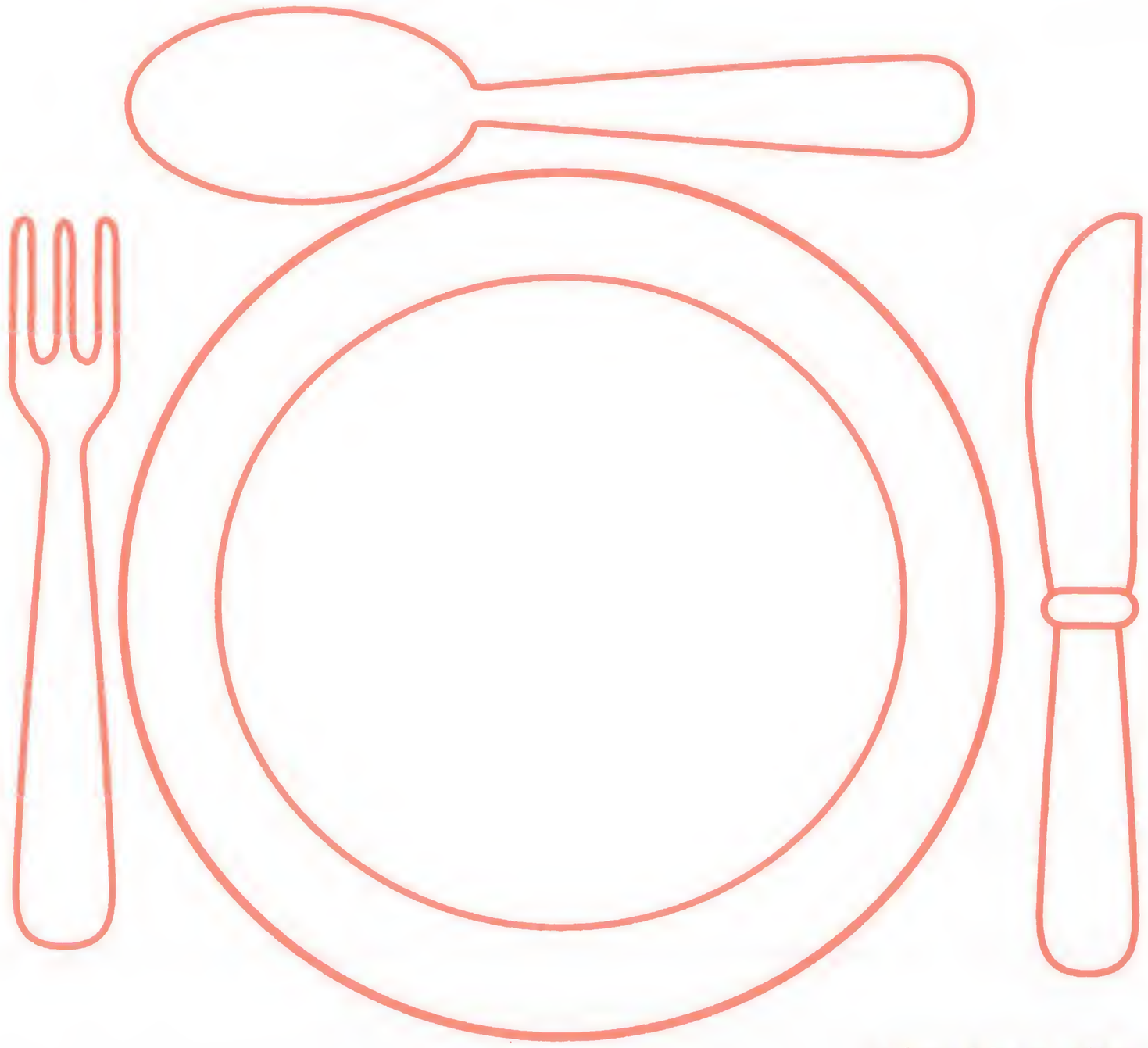
Fat and sugar

Protein – meat, fish, beans

Dairy – milk, cheese and yoghurt

Fruit and vegetables

Carbohydrates – bread, pasta, potatoes, rice

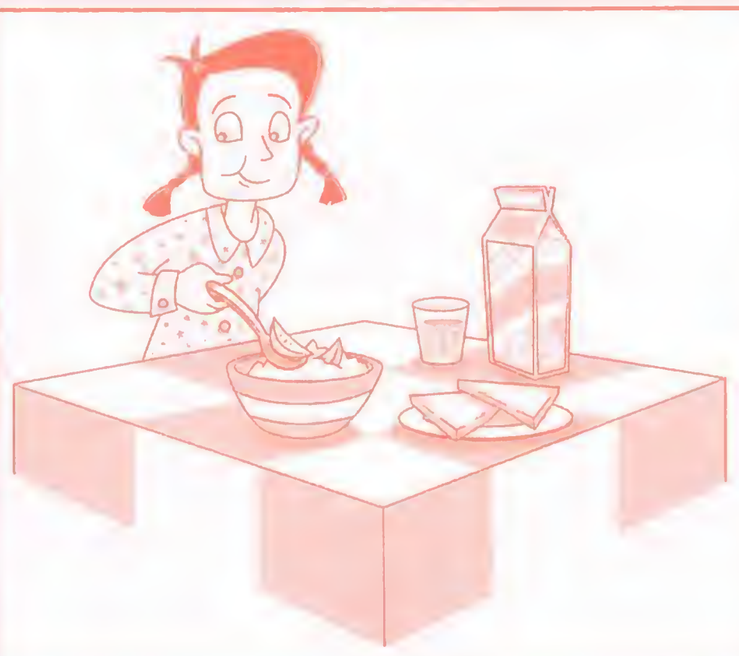


Exercise 2.3 Keeping teeth healthy

In this exercise, you can show that you know how to look after your teeth.

Sunita looks after her teeth, Dinesh does not.

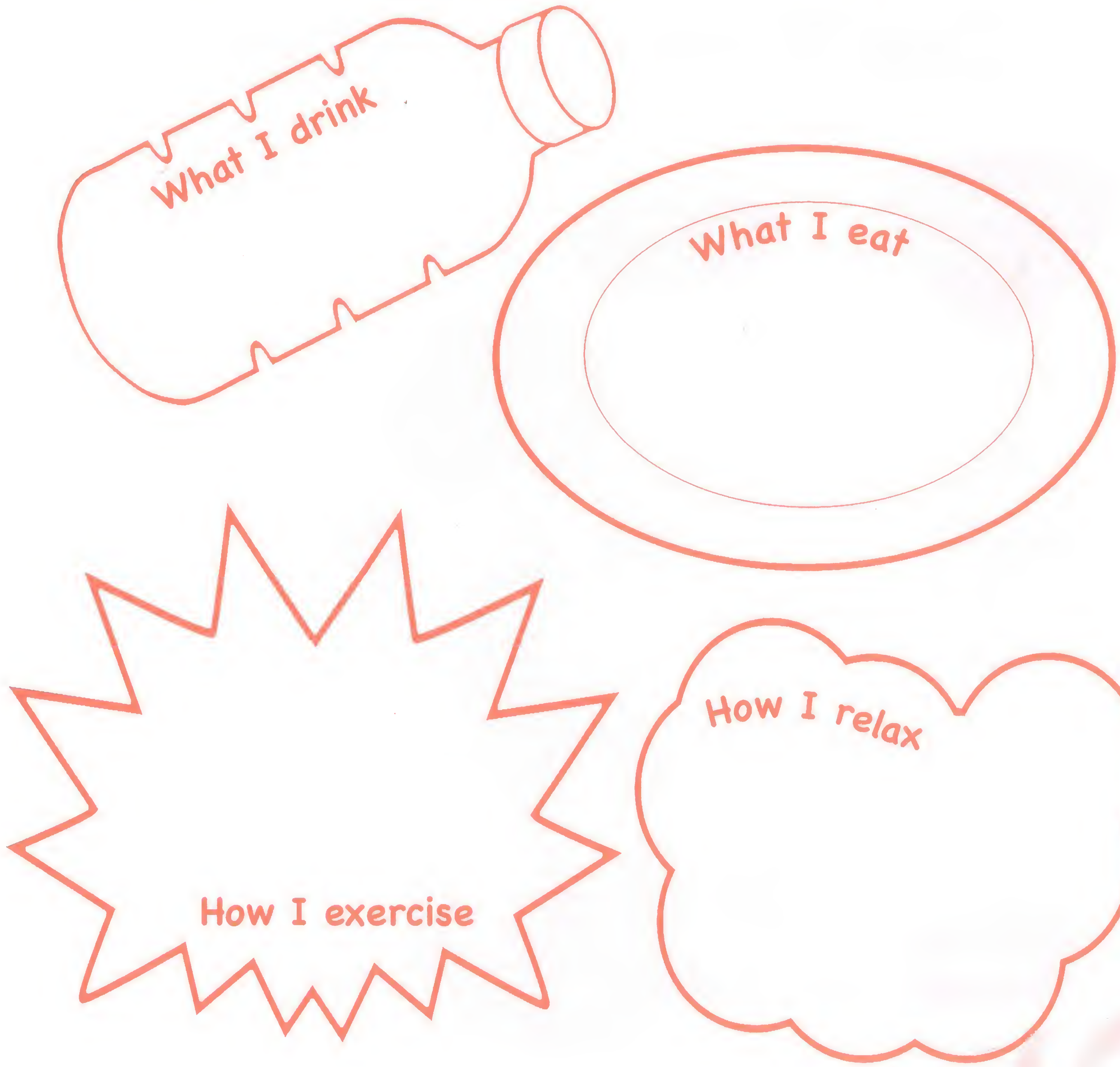
Draw what you think they do after breakfast and what they eat as snacks.

	Sunita	Dinesh
Breakfast		
After breakfast		
Having a snack		

Exercise 2.4 How I keep healthy

In this exercise, you can show everything you do to keep healthy.

Draw and label how you keep healthy in these different ways.

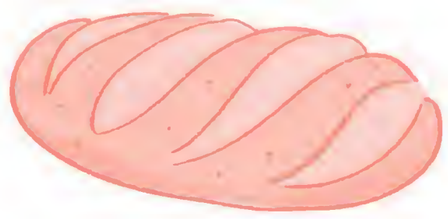


Language review

This exercise checks that you understand the scientific words used in this unit.

Write the missing words in these sentences using these words.

protein fat carbohydrate sugar teeth energy

and  give us _____ .

They are in the _____ food group.

is good for your _____ and bones.

The foods that help us grow have lots of _____ .

and  are unhealthy.

They have too much _____ and _____ .

3 Living things

Exercise 3.1 Making a sign

In this exercise, you will look at the seven life processes.

This way for non-living things that:

do not move

do not breathe

have no senses

do not need food and water

do not make waste

do not reproduce

do not grow

This way for living things that:

move

Help Safiya finish the living things sign.

Exercise 3.2 Life cycles

In this exercise, you will complete some life cycles.

Fill in the gaps using these words.

caterpillar	tadpole	butterfly	egg	hen	larva	seed

frog spawn → _____ → froglet → frog

egg → _____ → chrysalis → _____

_____ → chick → _____

egg → _____ → pupa → ladybug

_____ → seedling → young plant → plant with fruit containing seed

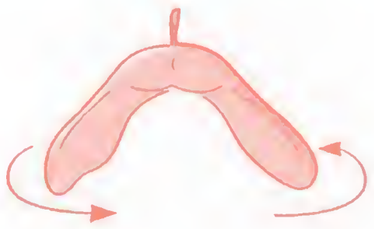
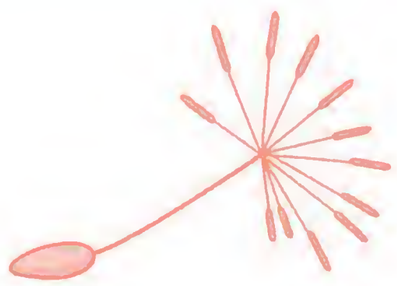
Exercise 3.3 How do seeds move?

In this exercise, you will look at different ways in which seeds can move.

Flowers move when they turn to face the Sun or close at night.

Many plants make seeds which can move a long way.

Look at these seeds. Write about or draw how they move.

Seed	How will this move?
	
	
	
	

Exercise 3.4 Similar and different

In this exercise, you will look at the similarities and differences between you and two friends.

Complete the information sheet about yourself.

Me

My hair colour is _____

My eye colour is _____

My skin tone is _____

Do I have freckles? _____

Do I wear glasses? _____

Now look at two friends and complete the information for them.

My friend _____

has similar _____

_____

He/she has different _____

_____

My friend _____

has similar _____

_____

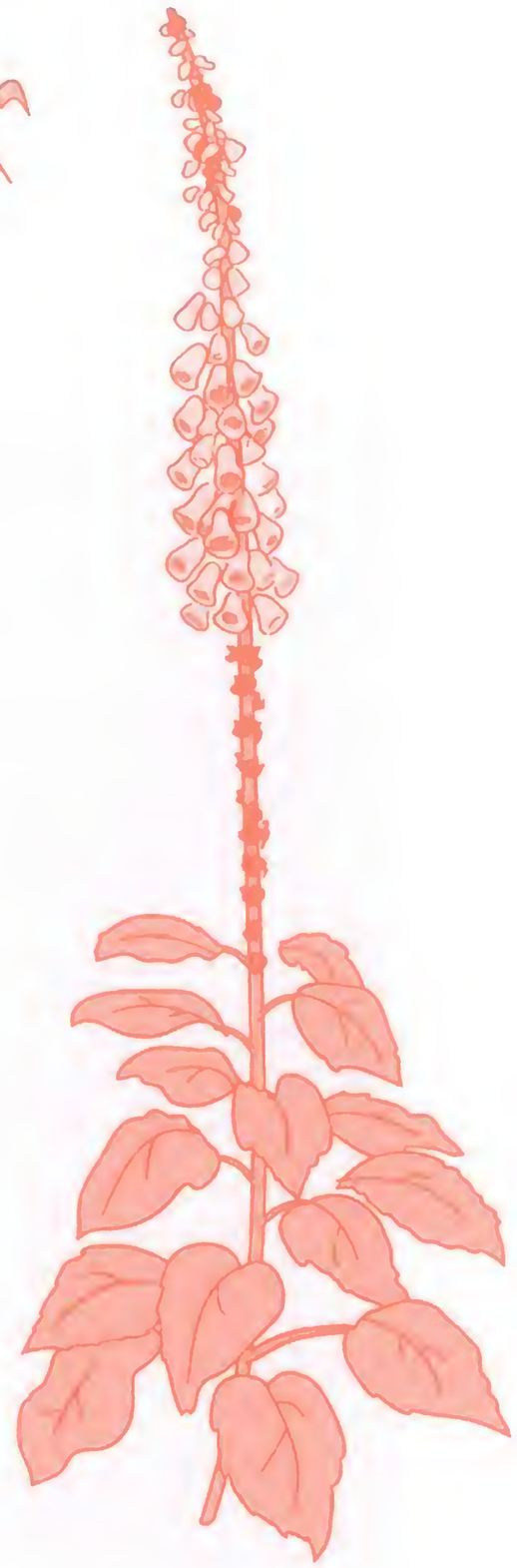
He/she has different _____

_____

Exercise 3.5 Sorting plants

In this exercise, you will sort some plants.

Kilim is planting his garden.
He has these plants and wants
to group them in his flower bed.



Can you help him sort them?

Draw a line from each plant to the correct box.

Tall plants	
no flower	with flower
Short plants	
no flower	with flower

Language review

This exercise checks that you understand the scientific words used in this unit.

Match these words to their meanings.

The first one has been done for you.

diet	mostly green plants we eat
exercise	breathing
vegetables	when my body is well and strong
adult	the food I eat
growth	not dead
respiration	moving which keeps me healthy
healthy	living things get bigger
alive	a grown up

4 Our five senses

Exercise 4.1 How loud is the sound?

In this exercise, you will put sounds in order according to how loud they are.

Here are some things that make a noise. Put them in order from the loudest to the quietest.

loudest >>>>>>>>>>>>>>>>>>>> softer >>>>>>>>>>>>>>>>>>>> quietest

_____ _____ _____ _____ _____ _____

Exercise 4.2 Taste test

In this exercise, you will interpret data from a taste test.

Ramos tested all his friends to see what foods they liked. Here are the results.

Food	Number of people who like	Number of people who dislike
biscuits	10	4
apple	12	2
chicken	6	8
grapes	11	3
cooked plain rice	9	5
cake	12	2

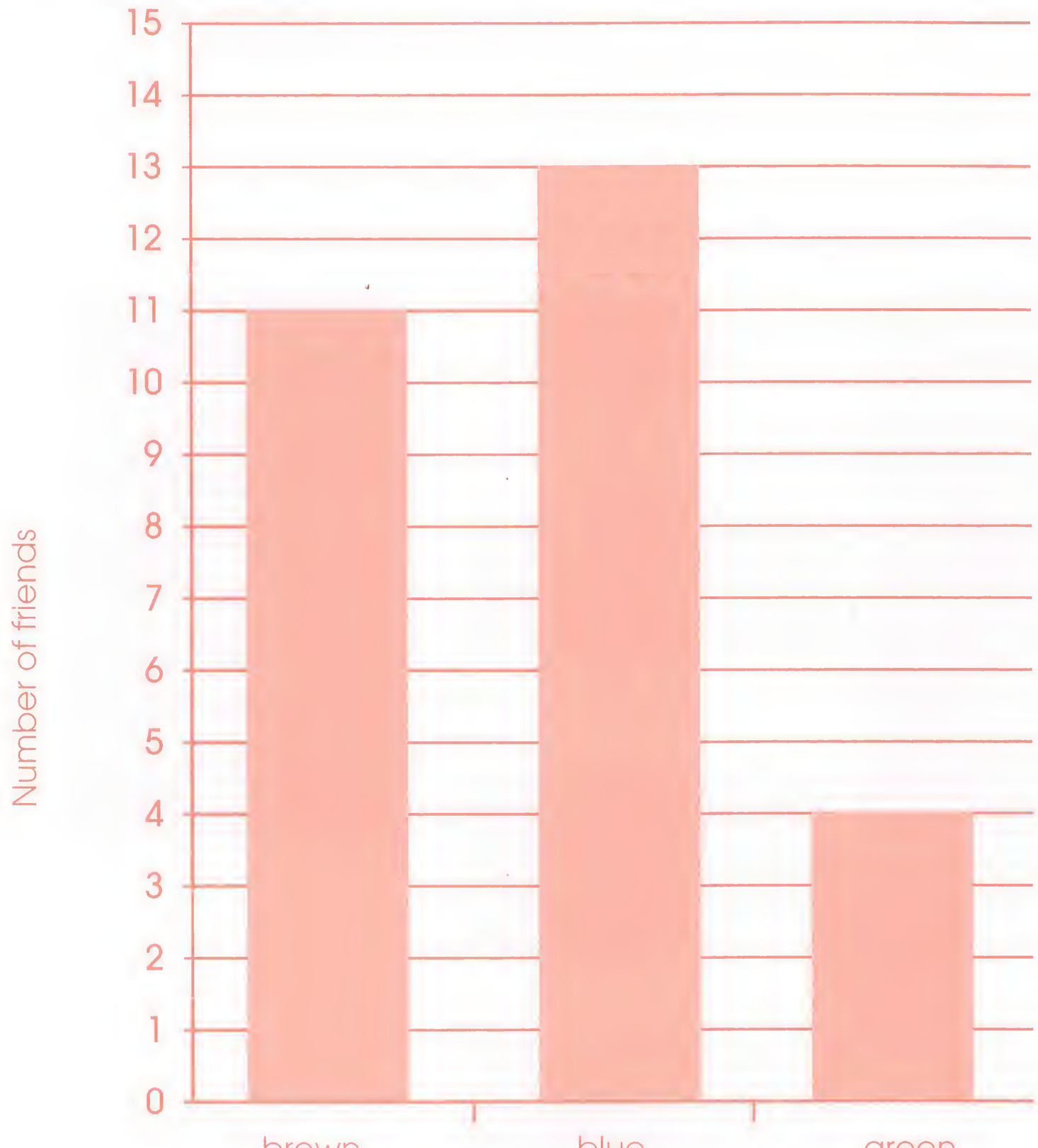
1 Which food did people like the best?

2 Which food was least popular?

3 Is there a pattern (for example, what type of foods are most popular)?

Exercise 4.3 Eye colour

Tariq has recorded his friends' eye colours on this graph.



1 Which eye colour is the most common?

_____

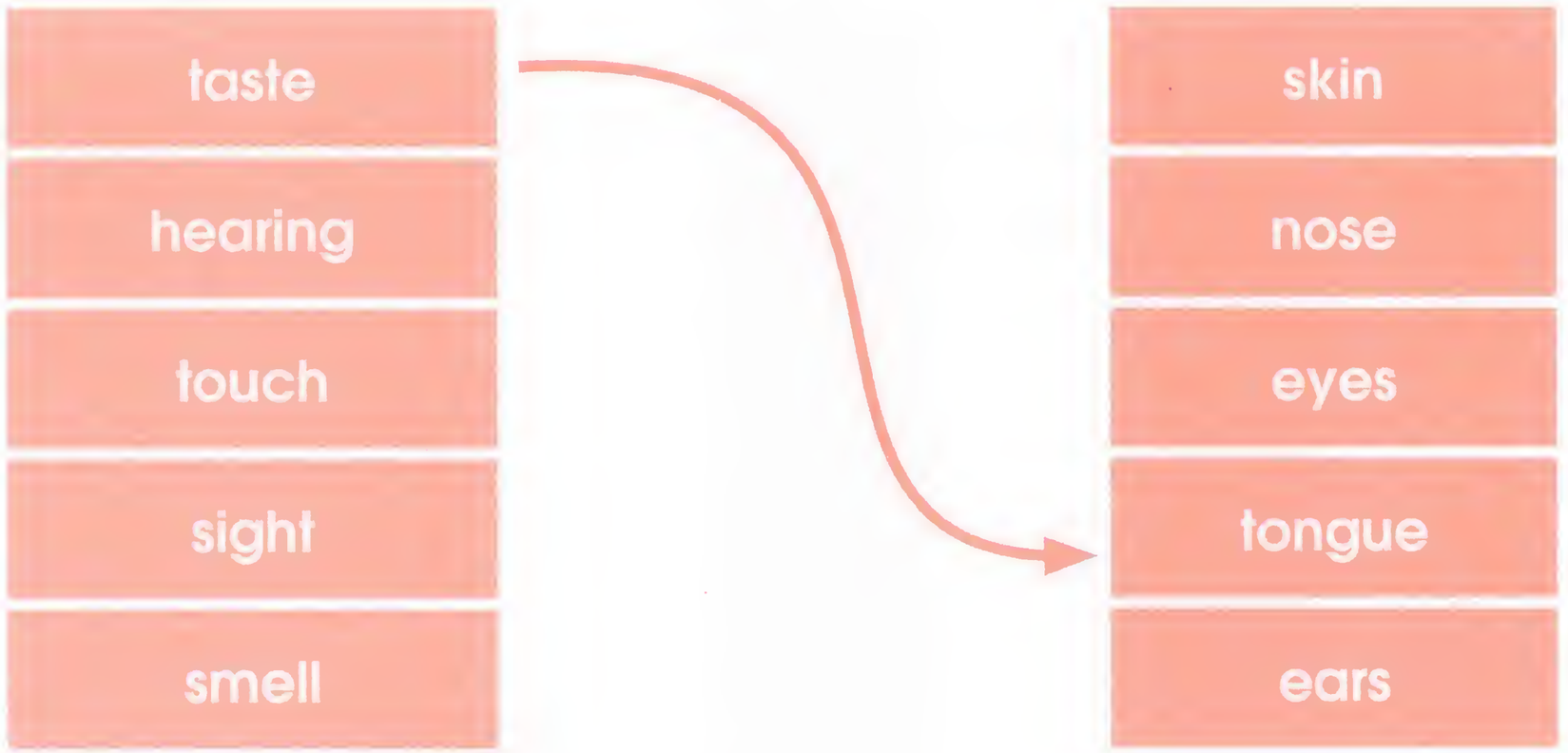
2 Which eye colour is the least common?

_____

Language review

This exercise checks that you understand the scientific words used in this unit.

1 **Match each sense to its sense organ. The first one has been done for you.**



2 **Which two senses often work together?**

_____ and _____

3 **Which tastes are sensed by the taste buds on a human tongue?**

_____

_____

_____

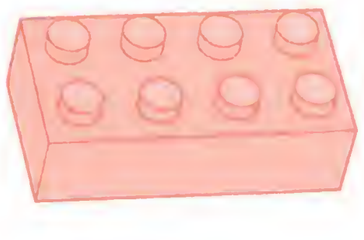
_____

_____

5 Investigating materials

Exercise 5.1 Can you guess the material?

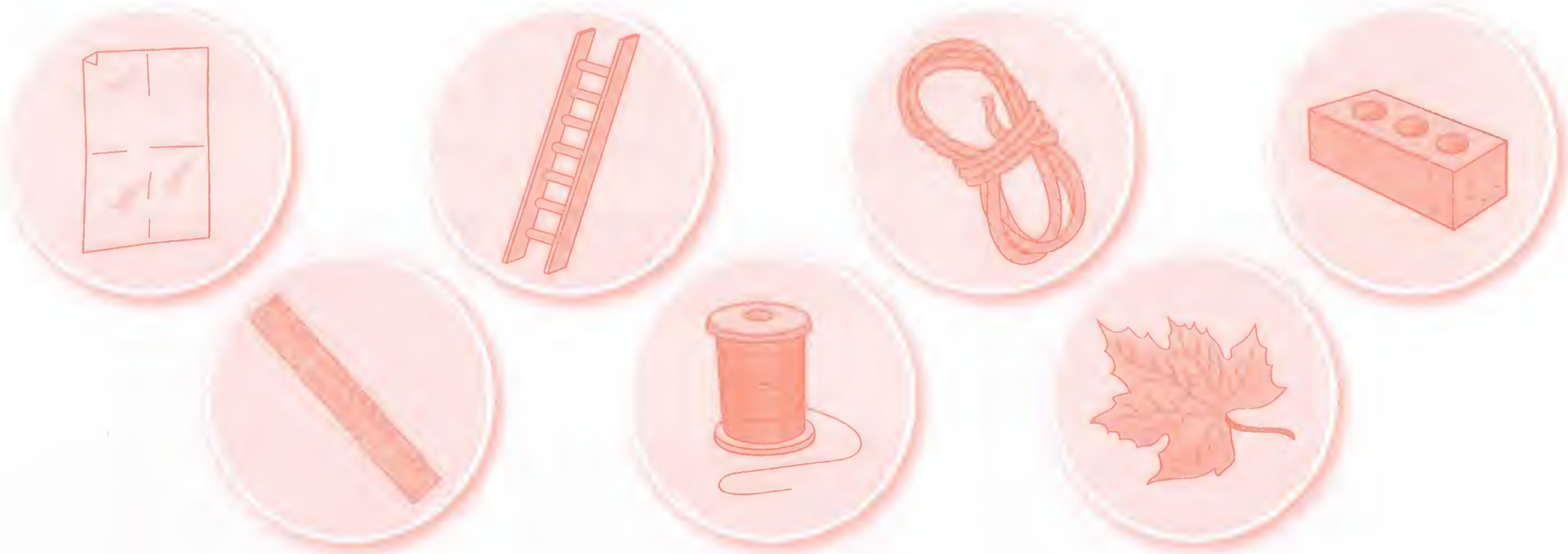
This exercise checks that you know the properties of some materials.
Match the objects to the materials and their properties.

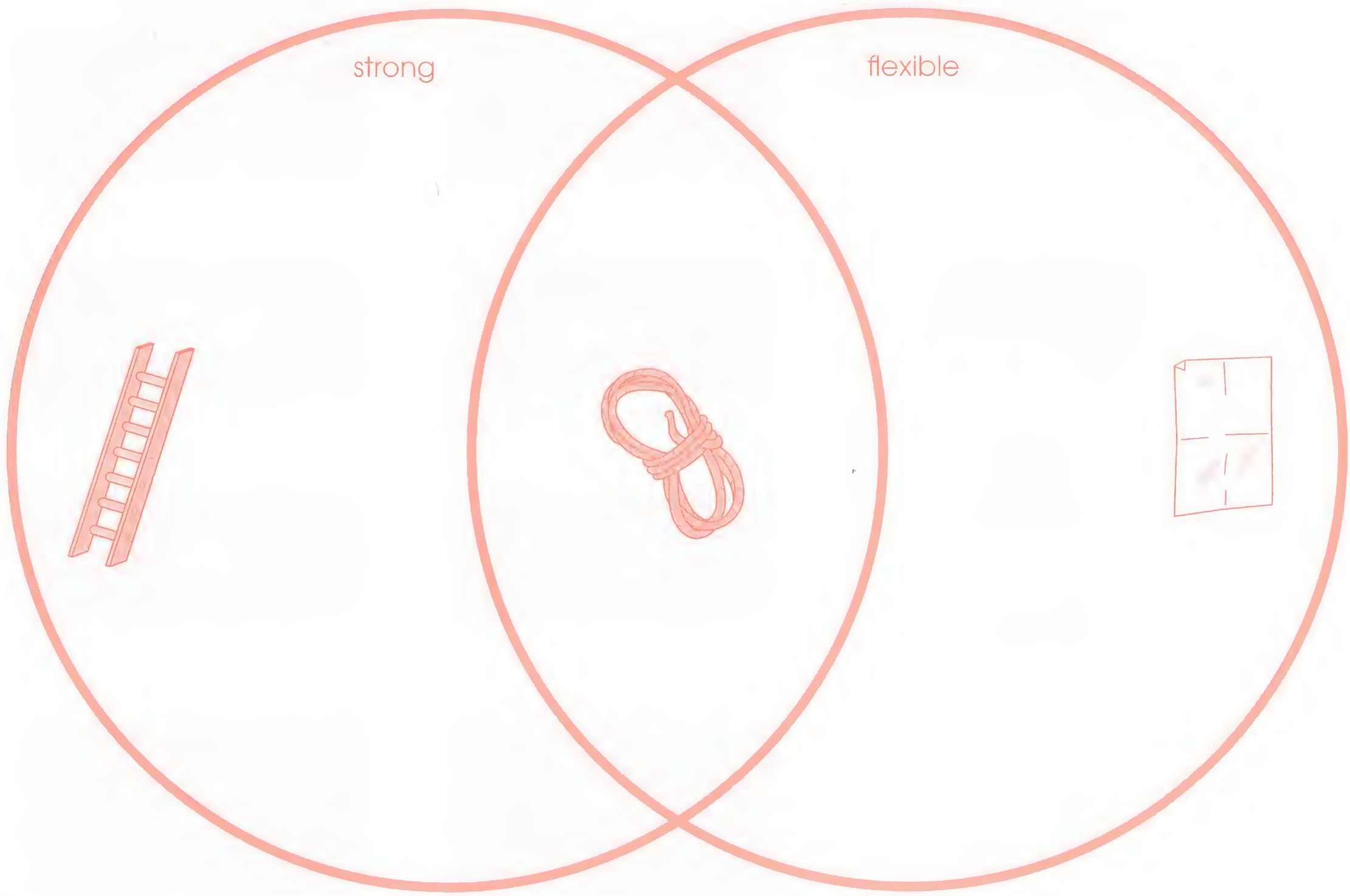
Object	Material	Properties
	plastic	strong, shiny
	wool	brown, rough
	metal	smooth, bright colours
	glass	soft, hairy
	wood	smooth, transparent

Exercise 5.2 Sorting objects

In this exercise, you will sort some objects using a Venn diagram.

Some have been done for you.





Exercise 5.3 What is this material useful for?

In this exercise, you can show what different materials are used for.

In each box below, write the name of a material and then some of the things we use it for.

The first one has been done for you.

glass

We use it for:

drinking glasses

spectacles greenhouses

TV screens windows

We use it for:

We use it for:

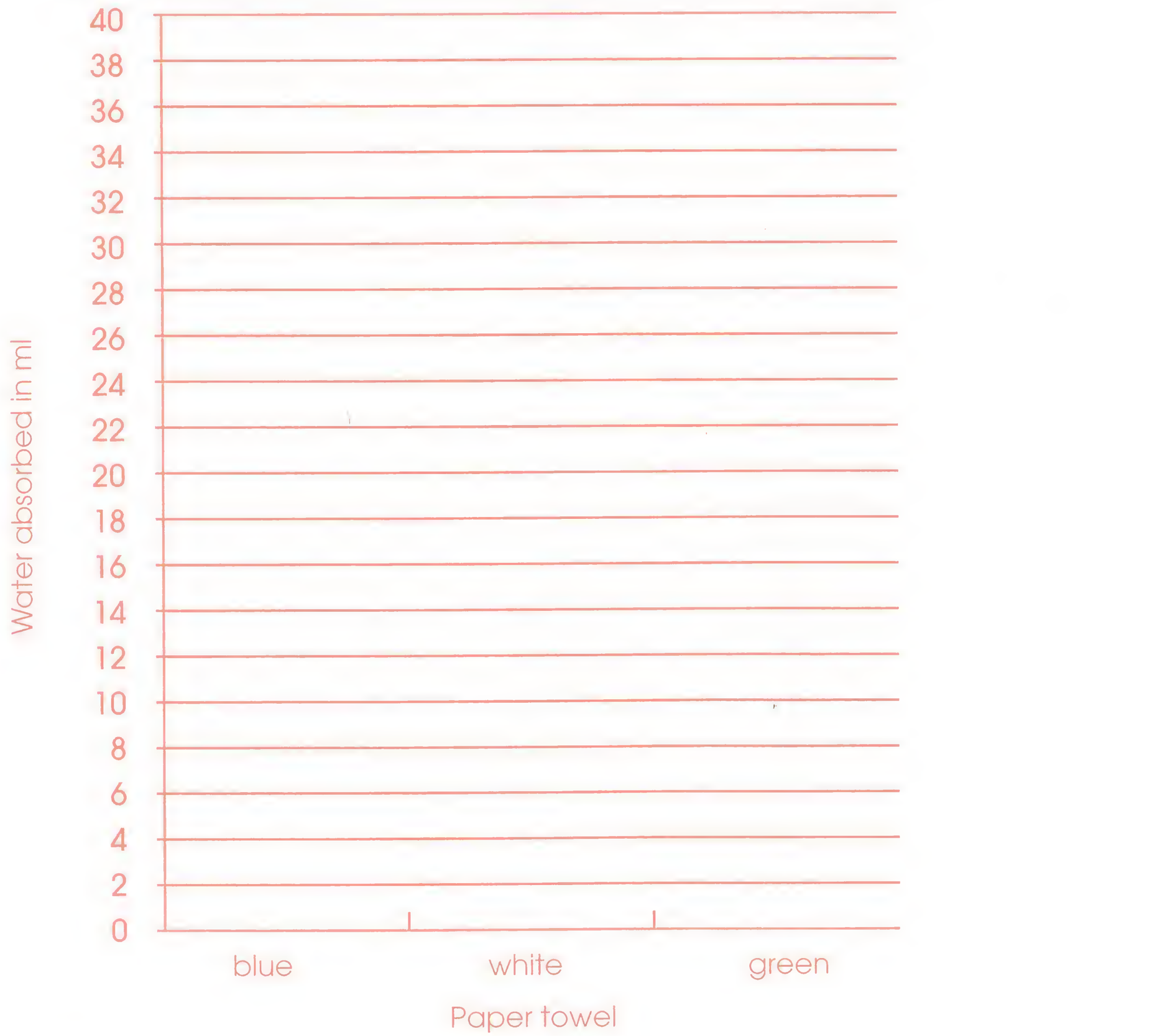
We use it for:

Exercise 5.4 Testing materials

In this exercise, you will practise drawing a bar chart.

Hong investigated which paper towel was the most absorbent.
Draw a bar chart of her results.

Paper towel	Blue	White	Green
Water absorbed in ml	12	36	22



Which paper towel was the most absorbent? _____

Exercise 5.5 Magnetic materials

In this exercise, you can show that you understand which materials are magnetic.

Razi and Zoe investigated which materials were magnetic.
Finish Razi's table of results.

Object	Material	Magnetic or non-magnetic
pencil	wood	non-magnetic
paper clip		magnetic
chair	plastic	
magazine		
scissors	metal	

Which of the materials were magnetic?

Language review

This exercise checks that you understand the scientific words used in this unit.

1 Complete these sentences about the properties of materials.

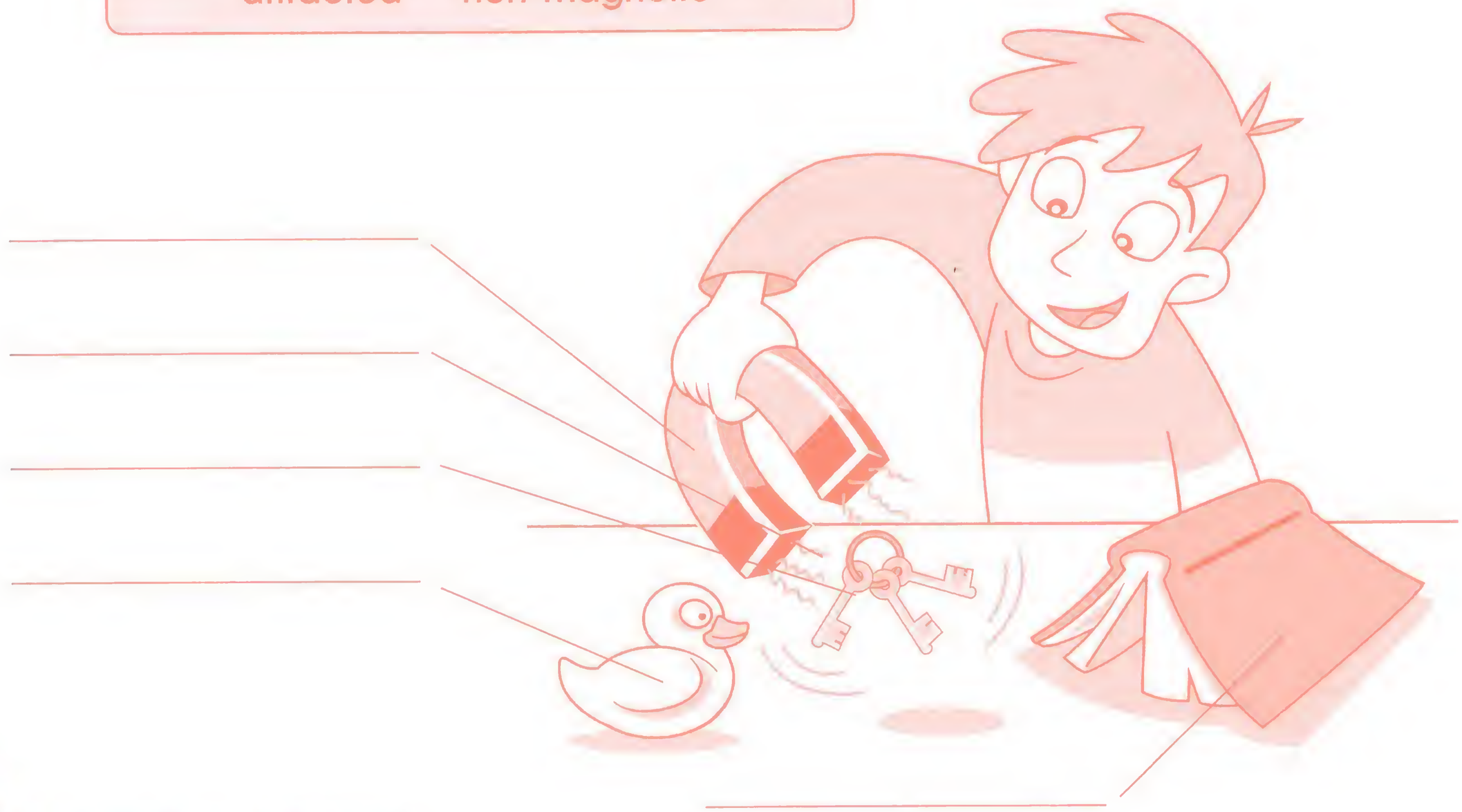
Metals are h_____ . Paper is f_____ .

When wood is cut it is r_____ but it can be made s_____ .

This plastic coat is w_____ .

2 Label this picture with these words.

magnetic non-magnetic magnet
attracted non-magnetic



6 Forces and movement

Exercise 6.1 Push and pull

In this exercise, you will think about things that are pushed and pulled. The pictures are to help you, but do add your own ideas. Draw or write them in the boxes below.

Things I push

Things I pull

Exercise 6.2 Changing shape

In this exercise, you will think about how the shape of objects and materials can be changed using forces.

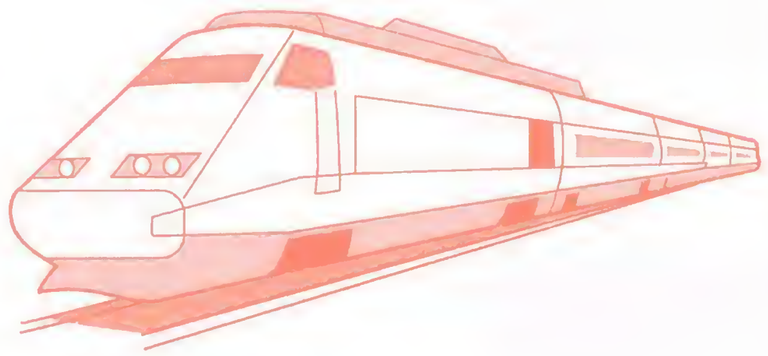
Draw the object and say how you would change its shape.

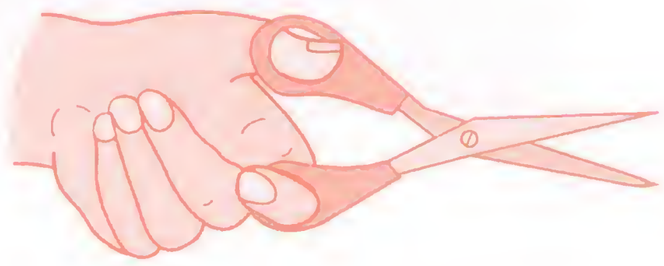
Object	What type of force could I use to change the shape?
wood	
sandcastle	
elastic band	

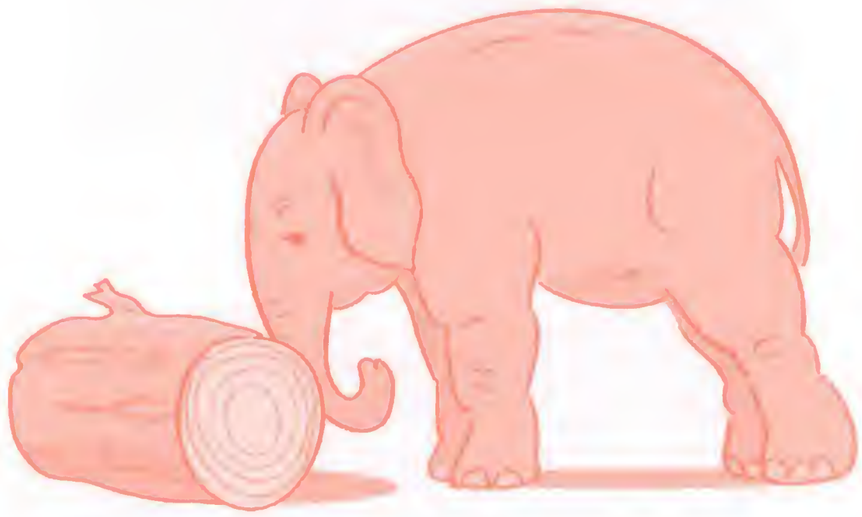
Exercise 6.3 Small force or big force?

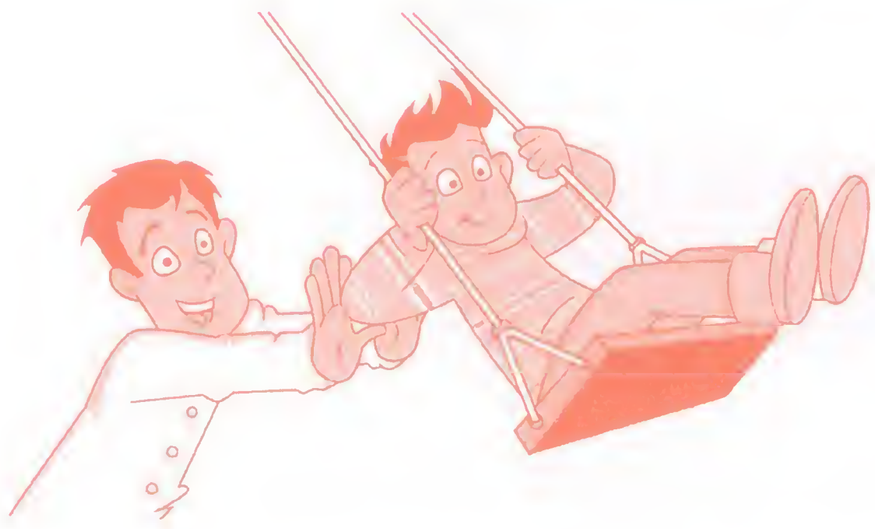
In this exercise, you will sort pictures into those that show a big force and those that show a small force.

Draw a line from each picture to the correct box.









small force

big force

Exercise 6.4 How much force?

In this exercise, match each object to the size of force needed to make it start to move. The first one has been done for you.

brick	10 newtons
book	5 newtons
box of paper	25 newtons
shoe	1 newton
car	20 newtons
heavy door	10 000 newtons

Explain your choices to the class.

Exercise 6.5 Friction

In this exercise, you will think about where friction is acting.

Look at the pictures. Draw an arrow to show where friction is acting.

Language review

This exercise checks that you understand the scientific words used in this unit.

Match each word to its meaning.

The first one has been done for you.

force	opposite of push
newton	a machine for measuring forces
pull	opposite of pull
forcemeter	a push or a pull
friction	a force which acts when two surfaces are in contact
push	the unit of force

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Activity Book 3

Cambridge Primary Science is a flexible, engaging course written specifically for the Cambridge Primary Science curriculum framework (Stages 1–6). The course offers plenty of teaching ideas to give flexibility, allowing teachers to select activities most appropriate to their classroom and pupils. An enquiry-based style of teaching and learning is stimulated, with the Scientific Enquiry objectives integrated throughout to encourage learning of these skills alongside the scientific concepts. The language level is carefully pitched to be accessible to EAL/ESL learners, with concepts illustrated through diagrams to allow visual understanding and learning.

The Activity Book contains:

- one exercise to accompany each Topic in the Learner's Book
- exercises that can be completed in class or as homework
- exercises that are designed to consolidate understanding and deepen it by applying knowledge in new situations
- exercises that practise Scientific Enquiry skills
- at the end of each unit, an exercise to practise the core vocabulary from that unit.

Other components of Cambridge Primary Science 3:

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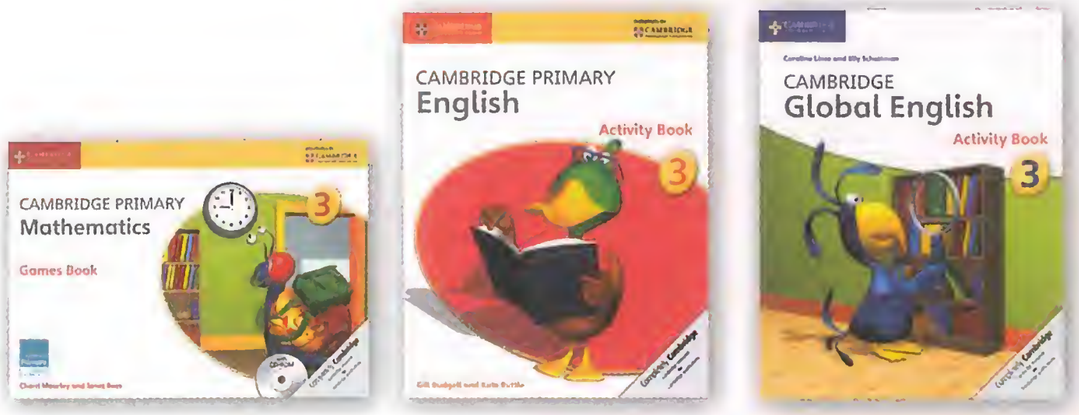

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